

SEQUENCE LISTING

<110> Method for screening of filamentous fungus-specific antimicrobial agents
and kit for the screening

<120> RIKEN

<130> PH-2421-PCT

<150> JP 2004-061273

<151> 2004-03-04

<160> 17

<170> PatentIn Ver. 2.1

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<213> Magnaporthe grisea

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<400> 16

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15

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20

25

30

Ser Thr Tyr Val Gln Leu Pro Gly Pro Glu Ser Asp Glu Lys Lys Gln

35

40

45

Leu Glu Arg Glu Leu Ala Ala Leu Val Ile Arg Val Gln Gln Leu Glu
50 55 60

Thr Arg Ala Asn Ala Ala Pro Ala Thr Ile Phe Pro Asp Thr Pro Asn
65 70 75 80

Glu Thr Ala His Ser Leu Phe Gly Asp Asp Ser Ser Ser Pro Thr Ser
85 90 95

Ser Ser Ser Gly Arg Glu Pro Lys Arg Leu Lys Ser Ala Ser Ser Thr
100 105 110

Thr Arg Asn Gly Phe Thr Thr Asp Gly Arg Pro Ser Lys Leu Asn Ala
115 120 125

Ile Thr Asp Glu Glu Leu Glu Gly Leu Arg Glu His Val Asp Gly Gln
130 135 140

Ser Arg Leu Leu Asp Ser Gln Arg Ala Glu Leu Asp Gly Val Asn Ala
145 150 155 160

Gln Leu Leu Glu Gln Lys Gln Leu Gln Glu Arg Ala Leu Ala Ile Ile
165 170 175

Glu Gln Glu Arg Val Ala Thr Leu Glu Arg Glu Leu Trp Lys His Gln
180 185 190

Lys Ala Asn Glu Ala Phe Gln Lys Ala Leu Arg Glu Ile Gly Ser Ile
195 200 205

Val Thr Ala Ala Ala Arg Gly Asp Leu Ser Lys Arg Val Lys Ile Asn
210 215 220

Pro Ile Glu Met Asp Pro Glu Ile Thr Thr Phe Lys Arg Thr Met Asn
225 230 235 240

Ala Met Met Asp Gln Leu Gly Val Phe Ser Ser Glu Val Ser Arg Val
245 250 255

Ala Arg Glu Val Gly Thr Glu Gly Ile Leu Gly Gly Gln Ala Gln Ile
260 265 270

Glu Gly Val Asp Gly Thr Trp Lys Glu Leu Thr Asp Asn Val Asn Val
275 280 285

Met Ala Gln Asn Leu Thr Asp Gln Val Arg Glu Ile Ala Ser Val Thr
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Thr Ala Val Ala His Gly Asp Leu Thr Gln Lys Ile Glu Ser Ala Ala
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Lys Gly Glu Ile Leu Gln Leu Gln Gln Thr Ile Asn Thr Met Val Asp
325 330 335

Gln Leu Arg Thr Phe Ala Ser Glu Val Thr Arg Val Ala Arg Asp Val
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Gly Thr Glu Gly Met Leu Gly Gly Gln Ala Asp Val Glu Gly Val Lys
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Gly Met Trp Asn Glu Leu Thr Val Asn Val Asn Ala Met Ala Asn Asn
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Lys Gly Asp Leu Thr Gln Lys Val Gln Ala Glu Cys Arg Gly Glu Ile
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Phe Glu Leu Lys Asn Thr Ile Asn Ser Met Val Asp Gln Leu Gln Gln
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Phe Ala Arg Glu Val Thr Lys Ile Ala Arg Glu Val Gly Thr Glu Gly
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Arg Leu Gly Gly Gln Ala Thr Val His Asp Val Gln Gly Thr Trp Arg
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Val Arg Glu Ile Ala Asn Val Thr Ser Ala Val Ala Ala Gly Asp Leu
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Ser Lys Lys Ile Arg Val Glu Val Lys Gly Glu Ile Leu Asp Leu Lys
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Val Ser Lys Val Ala Arg Ala Val Gly Thr Asp Gly Thr Leu Gly Gly
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565 570 575

Ser Thr Val Thr Gln Ala Ile Ala Asn Gly Asp Met Ser Arg Lys Ile
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Asn Met Val Asp Arg Leu Ser Ile Phe Cys Asn Glu Val Gln Arg Val
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Glu Leu Ala Asn Lys Thr Lys Ser Glu Phe Leu Ala Asn Met Ser His
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Glu Ile Arg Thr Pro Met Asn Gly Ile Ile Gly Met Thr Gln Leu Thr
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755 760 765

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820 825 830

Pro Asp His Val Ile Gly Asp Ser Phe Arg Leu Arg Gln Ile Ile Leu
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Leu Thr Ile Gln Lys Gly Asn Asp Val Thr Cys Leu Pro Asn Glu Tyr
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Met Ile Glu Phe Val Val Ser Asp Thr Gly Ile Gly Ile Pro Thr Asp
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Lys Gly Ser Ser Phe Tyr Phe Thr Cys Arg Val Arg Leu Ala Asp Val
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980 985 990

Gln Met Leu Gly Gln Leu Gly Leu Val Pro Ile Val Leu Glu Ser Glu
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Glu Tyr Leu Ser Lys Pro Leu	Gln Gln Asn His Leu Ile Gln Thr
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<211> 1298

<212> PRT

<213> *Neurospora crassa*

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20 25 30

Thr His Val Arg Leu Pro Gly Pro Tyr Thr Arg Glu Lys Gly Asp Leu

35 40 45

Glu Arg Glu Leu Ser Ala Leu Val Val Arg Ile Glu Gln Leu Glu Thr

50 55 60

Ala Ala Ile Ala Ala Ser Pro Pro Ala Met Pro Asp Thr Pro Asn Ala

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Pro Thr Asp Ala Leu Phe Ser Asn Gly Thr Leu Ser Pro Ser Ser Glu

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Ala Val Ala Arg Gly Asp Leu Ser Lys Lys Val Arg Met Asn Ser Val
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Glu Met Asp Pro Glu Ile Thr Thr Phe Lys Arg Thr Ile Asn Thr Met
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Val Asp Gly Thr Trp Lys Glu Leu Thr Asp Asn Val Asn Val Met Ala
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Val Ala His Gly Asp Leu Thr Lys Lys Ile Glu Arg Pro Ala Lys Gly
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Glu Ile Leu Gln Leu Gln Gln Thr Ile Asn Thr Met Val Asp Gln Leu
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Leu Lys Lys Thr Ile Asn Ser Met Val Asp Gln Leu Gln Gln Phe Ala
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Val Thr Gln Ala Ile Ala Asn Gly Asp Met Ser Arg Lys Ile Glu Val
565 570 575

Glu Ala Lys Gly Glu Ile Leu Ile Leu Lys Glu Thr Ile Asn Asn Met
580 585 590

Val Asp Arg Leu Ser Ile Phe Cys Asn Glu Val Gln Arg Val Ala Lys
595 600 605

Asp Val Gly Val Asp Gly Ile Met Gly Gly Gln Ala Asp Val Ala Gly
610 615 620

Leu Lys Gly Arg Trp Lys Glu Ile Thr Thr Asp Val Asn Thr Met Ala
625 630 635 640

Asn Asn Leu Thr Ala Gln Val Arg Ala Phe Gly Asp Ile Thr Asn Ala
645 650 655

Ala Thr Asp Gly Asp Phe Thr Lys Leu Val Glu Val Glu Ala Ser Gly
660 665 670

Glu Met Asp Glu Leu Lys Lys Lys Ile Asn Gln Met Val Tyr Asn Leu
675 680 685

Arg Asp Ser Ile Gln Arg Asn Thr Gln Ala Arg Glu Ala Ala Glu Leu
690 695 700

Ala Asn Lys Thr Lys Ser Glu Phe Leu Ala Asn Met Ser His Glu Ile
705 710 715 720

Arg Thr Pro Met Asn Gly Ile Ile Gly Met Thr Gln Leu Thr Leu Asp
725 730 735

Thr Asp Leu Thr Gln Tyr Gln Arg Glu Met Leu Asn Ile Val Asn Ser
740 745 750

Leu Ala Asn Ser Leu Leu Thr Ile Ile Asp Asp Ile Leu Asp Leu Ser
755 760 765

Lys Ile Glu Ala Arg Arg Met Val Ile Glu Glu Ile Pro Tyr Thr Leu
770 775 780

Arg Gly Thr Val Phe Asn Ala Leu Lys Thr Leu Ala Val Lys Glu Thr
785 790 795 800

Glu Lys Phe Leu Asp Leu Thr Tyr Arg Val Asp His Ser Val Pro Asp
805 810 815

His Val Val Gly Asp Ser Phe Arg Leu Arg Gln Ile Ile Leu Asn Leu
820 825 830

Val Gly Asn Ala Ile Lys Phe Thr Glu His Gly Glu Val Ser Leu Thr
835 840 845

Ile Gln Lys Ala Ser Ser Val Gln Cys Ser Thr Glu Glu Tyr Ala Ile
850 855 860

Glu Phe Val Val Ser Asp Thr Gly Ile Gly Ile Pro Ala Asp Lys Leu
865 870 875 880

Asp Leu Ile Phe Asp Thr Phe Gln Gln Ala Asp Gly Ser Met Thr Arg
885 890 895

Lys Phe Gly Gly Thr Gly Leu Gly Leu Ser Ile Ser Lys Arg Leu Val
900 905 910

Asn Leu Met Gly Gly Asp Val Trp Val Lys Ser Glu Tyr Gly Lys Gly
915 920 925

Ser Lys Phe Phe Phe Thr Cys Val Val Arg Leu Ala Asn Asp Asp Ile
930 935 940

Ser Leu Ile Ala Lys Gln Leu Asn Pro Tyr Lys Ser His Gln Val Leu
945 950 955 960

Phe Ile Asp Lys Gly Arg Thr Gly His Gly Pro Glu Ile Ala Lys Met
965 970 975

Leu His Gly Leu Gly Leu Val Pro Ile Val Val Asp Ser Glu Arg Asn
980 985 990

Pro Ala Leu Glu Lys Ala Arg Ala Ala Gly Gln Ala Pro Tyr Asp Val
995 1000 1005

Ile Ile Val Asp Ser Ile Glu Asp Ala Arg Arg Leu Arg Ser Val Asp
1010 1015 1020

Asp Phe Lys Tyr Leu Pro Ile Val Leu Leu Ala Pro Val Val His Val
1025 1030 1035 1040

Ser Leu Lys Ser Cys Leu Asp Leu Gly Ile Thr Ser Tyr Met Thr Thr
1045 1050 1055

Pro Cys Gln Leu Ile Asp Leu Gly Asn Gly Met Val Pro Ala Leu Glu
1060 1065 1070

Asn Arg Ala Thr Pro Ser Leu Ala Asp Asn Thr Lys Ser Phe Glu Ile
1075 1080 1085

Leu Leu Ala Glu Asp Asn Thr Val Asn Gln Arg Leu Ala Val Lys Ile

1090

1095

1100

Leu Glu Lys Tyr His His Val Val Thr Val Val Gly Asn Gly Glu Glu

1105

1110

1115

1120

Ala Val Glu Ala Val Lys Arg Lys Lys Phe Asp Val Ile Leu Met Asp

1125

1130

1135

Val Gln Met Pro Ile Met Gly Gly Phe Glu Ala Thr Ala Lys Ile Arg

1140

1145

1150

Glu Tyr Glu Arg Ser Leu Gly Ser Gln Arg Thr Pro Ile Ile Ala Leu

1155

1160

1165

Thr Ala His Ala Met Met Gly Asp Arg Glu Lys Cys Ile Gln Ala Gln

1170

1175

1180

Met Asp Glu Tyr Leu Ser Lys Pro Leu Gln Gln Asn His Leu Ile Gln

1185

1190

1195

1200

Thr Ile Leu Lys Cys Ala Thr Leu Gly Gly Gln Leu Leu Glu Lys Asn

1205

1210

1215

Arg Glu Arg Glu Leu Thr Arg Ala Ala Asp Ala Val Thr Gly Gly Arg

1220

1225

1230

Arg Asp Asn Gly Met Tyr Ser Ala Ser Gln Ala Ala Gln His Ala Ala

1235

1240

1245

Leu Arg Pro Pro Leu Ala Thr Arg Gly Leu Thr Ala Ala Asp Ser Leu
1250' 1255 1260

Val Ser Gly Leu Glu Ser Pro Ser Ile Val Thr Ala Asp Lys Glu Asp
1265 1270 1275 1280

Pro Leu Ser Arg Ala Arg Ala Ser Leu Ser Glu Pro Asn Ile His Lys
1285 1290 1295

Ala Ser